Amendments to the Specification:

Please amend the specification as follows:

Please replace the (unnumbered) paragraph located after paragraph number [0041], with the following rewritten paragraph:

> As shown in FIGURES 4-6, by applying such a filter to the controlled variable, the amplitude of the oscillations are reduced. Figures 4 shows the measurement of a supply air temperature 70 provided by a typical prior art HVAC to a downstream controlled space, while Figure 6 shows the actual measured temperature in the controlled space. As typical for such prior art HVAC systems, the amplitude of the oscillations of the supply air temperature is significantly greater than the amplitude of oscillations of the temperature in the controlled space. ~~By~~ <u>Referring to Figures 5 and 6, by</u> using a filter such as described above, the supply air temperature <u>(Figure 5)</u> can be controlled to have oscillations of approximately the same magnitude as the oscillations in the controlled space <u>(Figure 6)</u>. As persons skilled in the art will appreciate, this can significantly improve the efficiency of operation of the system.

Please replace paragraph number [0049], with the following rewritten paragraph:

> [0049] The control signal u(s) preferably has values between zero and one (i.e., between 0% and 100%) in response to the inputs to feedback controller 126. The value of control signal u(s) provides a relative indication of the magnitude (0% to 100%) that the controlled device ~~30~~ <u>130</u> needs to be operated at in order to bring the downstream variable z(s) to the desired level or set point SP, i.e., the control signal u(s) is representative of the difference or "error" between the setpoint SP and the averaged or filtered controlled variable signal $\bar{y}$(s).

Please replace paragraph number [0051], with the following rewritten paragraph:

[0051] Switching controller 128 responds to the control signal u(s) by producing an output signal h(s) (i.e., a sequence, in time, of on and off epochs; which is also known as a "pulse stream" or "pulse train" and shown in FIGURE 7). This output signal h(s) is the input signal to controlled device ~~30~~ 130 and turns controlled device 130 on and off. The output signal h(s) has a cycle period and an on-time that is a fraction of the total cycle period. In a preferred embodiment, both the cycle period and the on-time are functions of the control signal u(s).

Please replace paragraph number [0054], with the following rewritten paragraph:

[0054] The system and method is intended to use a switching control on the controlled device 130 (particularly a controlled device with specified operational or performance characteristics such as minimum on/off times large relative to the time constant of the system trying to be controlled). The system and method shown in FIGURES 8 and 9 uses (e.g., selects, identifies, calculates, sets, etc.) a time constant ($\tau_{desired}$) independent of the downstream variable. The downstream variable z(s) of downstream system 124 is comprised of a gain component 138 and a dynamic component 140.

Please replace paragraph number [0055], with the following rewritten paragraph:

[0055] According to an exemplary embodiment, minimum on/off times of the controlled device 130 are compared to the time constant (τ_{device}) of the controlled device 130 so that if the minimum on/off times are sufficiently large (relative to the time constant), the time constant for the averaging device 132 (e.g., a filter) is a function of the minimum on/off times. As such, the time constant for the averaging device 132 is based on the minimum on/off times of the controlled device 130 rather than a downstream or other variable. With this time constant, the averaging device 132 provides an estimate of the average output of the controlled device 130.